IN THE CLAIMS

1. (Cancelled)

2. (Previously amended) The vacuum treatment chamber of claim 13, wherein $S \geq 1$.

3. (Previously amended) The vacuum treatment chamber of claim 13, wherein the slots have a width d, wherein $d \leq 2$ mm.

C1

4. (Previously amended) The vacuum treatment chamber of claim 13, wherein the screen comprises metal and is connected with an electrical reference potential.

5. (Original) The vacuum treatment chamber of claim 2, wherein the slots, viewed from above and in an axial direction, are offset (φ) in relation to the radial direction (r).

6.-12. (Cancelled)

13. (Currently amended) A vacuum treatment chamber for workpieces comprising a treatment space, at least one induction coil encircling said treatment space having a coil axis at least for contributing to generation of a plasma within said treatment space, a self-contained hollow screen body having an inner surface and an outer surface configured as a substantially thin-walled

cylindrical member so as to be replaceable as a unit, and arranged substantially coaxially to said coil axis within said treatment space, ~~said~~ the inner surface of said hollow screen body being freely exposed to said treatment space, said hollow screen body having a pattern of through-slots extending substantially in a direction of said coil axis and being distributed around said coil axis to allow for ~~free~~ direct line-of-sight paths along the through-slots from ~~a chamber wall~~ the outer surface to ~~said coil axis~~ the inner surface of said hollow screen body, with a density S of said slots of said pattern per cm taken in a circumferential direction of said screen body being at least 0.5.

C1 Cont'd

14. (Previously added) The vacuum treatment chamber of claim 13, wherein said vacuum chamber further comprises a dielectric material chamber wall, and said at least one induction coil is mounted one of outside and of inside said chamber wall.

15. (Previously added) The vacuum treatment chamber of claim 13, further comprising at least two electrodes mutually distant from each other inside said treatment chamber and facing said treatment space, said at least two electrodes being operatively connected to an electric supply source selected from the group consisting of a DC source, and AC source, an AC+DC source, pulsed DC source, and an Rf-source so as to contribute to generating said plasma.

16. (Previously added) The vacuum treatment chamber of claim 13, further comprising a plasma density measuring apparatus and configured to

output a signal indicative of instantaneously prevailing plasma density of said plasma, the output thereof being operatively connected as an actual value input of a negative feedback control circuit whose output is operatively connected to said at least one induction coil for adjusting said plasma density.

17. (Previously amended) The vacuum treatment chamber of claim 16, wherein said plasma density measuring apparatus comprises a voltage measuring apparatus having an input, operatively connected to an electrode arranged to be exposed to said plasma.

C1 Contd

18. (Previously added) The vacuum treatment chamber of claim 16, wherein said plasma density measuring apparatus is mounted to one of a workpiece support and a target electrode within said vacuum treatment chamber.

19. (Currently amended) A method for manufacturing vacuum surface treated workpieces, comprising:

evacuating a vacuum treatment chamber;

introducing a workpiece into a treatment space of said vacuum chamber;

generating in said treatment space a plasma, at least partially inductive with the use of a coil surrounding said treatment space;

providing a self-contained hollow screen body with an inner surface and with an outer surface configured as a substantially thin-walled cylindrical

member so as to be replaceable as a unit and arranged coaxially to said coil, with said inner surface being freely exposed to said treatment space;

said hollow screen body having a pattern of through-slots extending substantially in a direction of an axis of said coil and distributed around said coil axis to provide ~~free~~ direct line-of-sight paths along the through slots from ~~a chamber wall~~ the outer surface to ~~said coil axis~~ the inner surface of said hollow screen body, a density S of said slots of said pattern per cm taken in a circumferential direction of said screen body being at least 0.5; and

surface-treating in said treatment space said workpeice exposed to said plasma.

Cl, Contd

20. (Previously added) The method of claim 19, further comprising generating during said surface-treating of said workpiece electrically conductive material freed into said treatment space.

21. (Previously added) The method of claim 19, further comprising providing said screen body of metal material.

22. (Previously amended) The method of claim 19, further comprising exchanging said screen body when said inner surface thereof has been saturated by said surface-treating of said workpiece to a predetermined extent.

23. (Previously added) The method of claim 19, wherein surface treating of said workpiece is one of sputter-etching and sputter-coating.

24. (Previously added) The method of claim 19, further comprising separating, by said screen body, said treatment space from a further space around said outer surface of said screen body, and feeding gas into said vacuum treatment chamber and thereby into said further space.

25. (Previously added) The method of claim 19, thereby selecting said density S to be ≥ 1.

26. (Previously added) The method of claim 19, further selecting a width d of said through-slots to be ≤ 2 mm.

C 1 Cont'd

27. (Previously added) The method of claim 19, further comprising operatively connecting said screen body electrically on a reference potential.

28. (Previously added) The method of claim 19, further comprising additionally generating said plasma by at least two electrodes exposed to said treatment space capacitively, thereby feeding said at least two electrodes by one of DC, AC, AC+DC, pulsed DC and Rf.

29. (Previously added) The method of claim 19, further comprising monitoring an actual value of density of said plasma and negative-feedback controlling said density by adjusting an induction field generated by said coil within said plasma.

30. (Previously added) The vacuum treatment chamber of claim 13, whereby said density S is selected to be ≥ 1.

31. (Previously added) The vacuum treatment chamber of claim 13, further selecting a width d of said through-slots to be ≤ 2 mm.

32. (Previously added) The vacuum treatment chamber of claim 13, further selecting a width d of said through-slots to be ≤ 1 mm.

C 1 Cont'd

33. (Previously added) The vacuum treatment chamber of claim 13, wherein said screen body is operatively electrically connected on a reference potential.

34. (Previously added) The vacuum treatment chamber of claim 13, wherein the maximum width of the slots is 2 mm.

35. (Previously added) The method of claim 19, wherein the coil is operated at a frequency fm of 100 kHz $\leq$ fm $\leq$ 800 kHz.

36. (Previously added) The method of claim 19, wherein the coil is operated with a frequency fm of about 400 kHz.